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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 08:46:44 ON 08 AUG 2006

=> fil .bec
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 08:47:05 ON 08 AUG 2006
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s oligosaccharide# or lacto n neotetraose or LNnT or polylactosamine
FILE 'MEDLINE'
         26337 OLIGOSACCHARIDE#
           850 LACTO
        866662 N
           119 NEOTETRAOSE
           115 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
            18 LNNT
           191 POLYLACTOSAMINE
L1       26452 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'SCISEARCH'
         29240 OLIGOSACCHARIDE#
           730 LACTO
       1288845 N
           124 NEOTETRAOSE
           117 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
            19 LNNT
           200 POLYLACTOSAMINE
L2       29389 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'LIFESCI'
          6732 OLIGOSACCHARIDE#
           209 "LACTO"
        235941 "N"
            51 "NEOTETRAOSE"
            51 LACTO N NEOTETRAOSE
                 ("LACTO"(W)"N"(W)"NEOTETRAOSE")
             7 LNNT
            42 POLYLACTOSAMINE
L3        6785 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'BIOTECHDS'
          3500 OLIGOSACCHARIDE#
            67 LACTO
         49243 N
            14 NEOTETRAOSE
            13 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
             5 LNNT
             6 POLYLACTOSAMINE
L4        3509 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'BIOSIS'
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         24610 OLIGOSACCHARIDE#
          3001 LACTO
        930506 N
           115 NEOTETRAOSE
           112 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
            18 LNNT
           198 POLYLACTOSAMINE
L5       24798 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'EMBASE'
         19148 OLIGOSACCHARIDE#
           760 "LACTO"
        765103 "N"
           114 "NEOTETRAOSE"
           107 LACTO N NEOTETRAOSE
                 ("LACTO"(W)"N"(W)"NEOTETRAOSE")
            16 LNNT
           166 POLYLACTOSAMINE
L6       19291 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'HCAPLUS'
         52723 OLIGOSACCHARIDE#
          1414 LACTO
       2938495 N
           200 NEOTETRAOSE
           194 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
            36 LNNT
           219 POLYLACTOSAMINE
L7       52898 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
               NE

FILE 'NTIS'
           160 OLIGOSACCHARIDE#
             5 LACTO
         70204 N
             1 NEOTETRAOSE
             1 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
             0 LNNT
             1 POLYLACTOSAMINE
L8           162 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
                 NE

FILE 'ESBIOBASE'
          8732 OLIGOSACCHARIDE#
           263 LACTO
        347821 N
            74 NEOTETRAOSE
            71 LACTO N NEOTETRAOSE
                 (LACTO(W)N(W)NEOTETRAOSE)
            13 LNNT
           103 POLYLACTOSAMINE
L9         8833 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
                NE

FILE 'BIOTECHNO'
          9517 OLIGOSACCHARIDE#
           275 LACTO
        184936 N
            53 NEOTETRAOSE
            52 LACTO N NEOTETRAOSE
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                (LACTO(W)N(W)NEOTETRAOSE)
            8 LNNT
          113 POLYLACTOSAMINE
L10      9603 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
              NE

FILE 'WPIDS'
         6809 OLIGOSACCHARIDE#
          440 LACTO
       715293 N
           16 NEOTETRAOSE
           14 LACTO N NEOTETRAOSE
                (LACTO(W)N(W)NEOTETRAOSE)
           12 LNNT
           16 POLYLACTOSAMINE
L11      6821 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
              NE

TOTAL FOR ALL FILES
L12    188541 OLIGOSACCHARIDE# OR LACTO N NEOTETRAOSE OR LNNT OR POLYLACTOSAMI
              NE

=> s l12(5a)(synthes? or produc?)
FILE 'MEDLINE'
       514537 SYNTHES?
      1325695 PRODUC?
L13      1985 L1 (5A)(SYNTHES? OR PRODUC?)

FILE 'SCISEARCH'
       926556 SYNTHES?
      1876834 PRODUC?
L14      3485 L2 (5A)(SYNTHES? OR PRODUC?)

FILE 'LIFESCI'
       144358 SYNTHES?
       527152 PRODUC?
L15       843 L3 (5A)(SYNTHES? OR PRODUC?)

FILE 'BIOTECHDS'
        34586 SYNTHES?
       227725 PRODUC?
L16      1257 L4 (5A)(SYNTHES? OR PRODUC?)

FILE 'BIOSIS'
       656748 SYNTHES?
      1742148 PRODUC?
L17      3037 L5 (5A)(SYNTHES? OR PRODUC?)

FILE 'EMBASE'
       627192 SYNTHES?
      1265241 PRODUC?
L18      1893 L6 (5A)(SYNTHES? OR PRODUC?)

FILE 'HCAPLUS'
      1549739 SYNTHES?
      4302218 PRODUC?
       952648 PRODN
      4762572 PRODUC?
                (PRODUC? OR PRODN)
L19      7556 L7 (5A)(SYNTHES? OR PRODUC?)

FILE 'NTIS'
        42832 SYNTHES?
       373006 PRODUC?
L20        21 L8 (5A)(SYNTHES? OR PRODUC?)
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FILE 'ESBIOBASE'
        204472 SYNTHES?
        608490 PRODUC?
L21       1150 L9 (5A)(SYNTHES? OR PRODUC?)

FILE 'BIOTECHNO'
        170699 SYNTHES?
        394590 PRODUC?
L22       1016 L10(5A)(SYNTHES? OR PRODUC?)

FILE 'WPIDS'
        134619 SYNTHES?
       2391660 PRODUC?
L23        871 L11(5A)(SYNTHES? OR PRODUC?)

TOTAL FOR ALL FILES
L24      23114 L12(5A)(SYNTHES? OR PRODUC?)

=> s l24(5a)(coli or bacter? or microb? or microorganism?)
FILE 'MEDLINE'
        253748 COLI
        760136 BACTER?
        540996 MICROB?
         35086 MICROORGANISM?
L25         53 L13(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'SCISEARCH'
        234419 COLI
        383042 BACTER?
        143549 MICROB?
         46408 MICROORGANISM?
L26         78 L14(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'LIFESCI'
        100613 COLI
        200054 BACTER?
         56431 MICROB?
         40766 MICROORGANISM?
L27         35 L15(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'BIOTECHDS'
         46858 COLI
        126086 BACTER?
         21353 MICROB?
         27147 MICROORGANISM?
L28         78 L16(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'BIOSIS'
        280838 COLI
       1360384 BACTER?
        464454 MICROB?
       2730944 MICROORGANISM?
L29         79 L17(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'EMBASE'
        181004 COLI
        498787 BACTER?
        102474 MICROB?
        128650 MICROORGANISM?
L30         49 L18(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'HCAPLUS'
        272474 COLI
        600026 BACTER?
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        433840 MICROB?
        157282 MICROORGANISM?
L31        211 L19(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'NTIS'
          2843 COLI
         18843 BACTER?
         12858 MICROB?
          9124 MICROORGANISM?
L32          1 L20(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'ESBIOBASE'
         71929 COLI
        207488 BACTER?
        267445 MICROB?
         31230 MICROORGANISM?
L33         47 L21(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'BIOTECHNO'
         94549 COLI
        191870 BACTER?
         38419 MICROB?
         18193 MICROORGANISM?
L34         36 L22(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

FILE 'WPIDS'
         19428 COLI
        112405 BACTER?
         50391 MICROB?
         50770 MICROORGANISM?
L35         51 L23(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

TOTAL FOR ALL FILES
L36        718 L24(5A)(COLI OR BACTER? OR MICROB? OR MICROORGANISM?)

=>
=> s l36 not 2001-2006/py
FILE 'MEDLINE'
       3247230 2001-2006/PY
                 (20010000-20069999/PY)
L37         36 L25 NOT 2001-2006/PY

FILE 'SCISEARCH'
       6018888 2001-2006/PY
                 (20010000-20069999/PY)
L38         47 L26 NOT 2001-2006/PY

FILE 'LIFESCI'
        592799 2001-2006/PY
L39         25 L27 NOT 2001-2006/PY

FILE 'BIOTECHDS'
        136509 2001-2006/PY
L40         46 L28 NOT 2001-2006/PY

FILE 'BIOSIS'
       2943345 2001-2006/PY
L41         47 L29 NOT 2001-2006/PY

FILE 'EMBASE'
       2805100 2001-2006/PY
L42         35 L30 NOT 2001-2006/PY

FILE 'HCAPLUS'
       6085153 2001-2006/PY
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L43         117 L31 NOT 2001-2006/PY

FILE 'NTIS'
          91351 2001-2006/PY
L44           1 L32 NOT 2001-2006/PY

FILE 'ESBIOBASE'
        1701930 2001-2006/PY
L45          25 L33 NOT 2001-2006/PY

FILE 'BIOTECHNO'
         368875 2001-2006/PY
L46          28 L34 NOT 2001-2006/PY

FILE 'WPIDS'
        5198425 2001-2006/PY
L47          31 L35 NOT 2001-2006/PY

TOTAL FOR ALL FILES
L48         438 L36 NOT 2001-2006/PY

=> s lactose permease or lacY or lac(w)y
FILE 'MEDLINE'
          15898 LACTOSE
           3016 PERMEASE
            593 LACTOSE PERMEASE
                  (LACTOSE(W)PERMEASE)
            751 LACY
          10767 LAC
         150706 Y
             29 LAC(W)Y
L49         842 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'SCISEARCH'
          13693 LACTOSE
           3048 PERMEASE
            669 LACTOSE PERMEASE
                  (LACTOSE(W)PERMEASE)
            284 LACY
           8071 LAC
         165229 Y
              8 LAC(W)Y
L50         885 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'LIFESCI'
           4285 "LACTOSE"
           1600 "PERMEASE"
            264 LACTOSE PERMEASE
                  ("LACTOSE"(W)"PERMEASE")
            137 LACY
           3777 LAC
          31842 Y
             16 LAC(W)Y
L51         366 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'BIOTECHDS'
           3588 LACTOSE
            225 PERMEASE
             38 LACTOSE PERMEASE
                  (LACTOSE(W)PERMEASE)
             30 LACY
           1874 LAC
           5582 Y
              5 LAC(W)Y
L52          66 LACTOSE PERMEASE OR LACY OR LAC(W)Y
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FILE 'BIOSIS'
         18835 LACTOSE
          3118 PERMEASE
           488 LACTOSE PERMEASE
                 (LACTOSE(W)PERMEASE)
           354 LACY
          8691 LAC
        101073 Y
            62 LAC(W)Y
L53          793 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'EMBASE'
         13911 "LACTOSE"
          2174 "PERMEASE"
           450 LACTOSE PERMEASE
                 ("LACTOSE"(W)"PERMEASE")
           280 LACY
          5015 LAC
        109212 Y
            21 LAC(W)Y
L54          661 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'HCAPLUS'
         50995 LACTOSE
          3393 PERMEASE
           529 LACTOSE PERMEASE
                 (LACTOSE(W)PERMEASE)
           460 LACY
         10865 LAC
        318688 Y
            22 LAC(W)Y
L55          886 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'NTIS'
           215 LACTOSE
            12 PERMEASE
             1 LACTOSE PERMEASE
                 (LACTOSE(W)PERMEASE)
            14 LACY
           535 LAC
         15085 Y
             0 LAC(W)Y
L56           15 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'ESBIOBASE'
          3663 LACTOSE
          1326 PERMEASE
           229 LACTOSE PERMEASE
                 (LACTOSE(W)PERMEASE)
           117 LACY
          2120 LAC
         38894 Y
             2 LAC(W)Y
L57          307 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'BIOTECHNO'
          4333 LACTOSE
          1423 PERMEASE
           257 LACTOSE PERMEASE
                 (LACTOSE(W)PERMEASE)
           105 LACY
          2921 LAC
         24405 Y
            15 LAC(W)Y
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L58         317 LACTOSE PERMEASE OR LACY OR LAC(W)Y

FILE 'WPIDS'
           9730 LACTOSE
             88 PERMEASE
              4 LACTOSE PERMEASE
                  (LACTOSE(W)PERMEASE)
             42 LACY
            831 LAC
         245219 Y
              2 LAC(W)Y
L59          47 LACTOSE PERMEASE OR LACY OR LAC(W)Y

TOTAL FOR ALL FILES
L60        5185 LACTOSE PERMEASE OR LACY OR LAC(W) Y

=> s l60(10a)(express? or overexpress? or recombinant?)
FILE 'MEDLINE'
        1024157 EXPRESS?
          71925 OVEREXPRESS?
         270284 RECOMBINANT?
L61          42 L49(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'SCISEARCH'
        1310373 EXPRESS?
          82326 OVEREXPRESS?
         159511 RECOMBINANT?
L62          37 L50(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'LIFESCI'
         404839 EXPRESS?
          30361 OVEREXPRESS?
          71420 RECOMBINANT?
L63          33 L51(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'BIOTECHDS'
         146294 EXPRESS?
           5842 OVEREXPRESS?
         100896 RECOMBINANT?
L64          20 L52(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'BIOSIS'
        1211726 EXPRESS?
          78474 OVEREXPRESS?
         198990 RECOMBINANT?
L65          55 L53(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'EMBASE'
         937627 EXPRESS?
          71073 OVEREXPRESS?
         176753 RECOMBINANT?
L66          34 L54(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'HCAPLUS'
        1243069 EXPRESS?
          75149 OVEREXPRESS?
         192664 RECOMBINANT?
L67          67 L55(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'NTIS'
          39615 EXPRESS?
           1077 OVEREXPRESS?
           1685 RECOMBINANT?
L68           0 L56(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)
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FILE 'ESBIOBASE'
        589796 EXPRESS?
         55027 OVEREXPRESS?
         88619 RECOMBINANT?
L69         27 L57(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'BIOTECHNO'
        452182 EXPRESS?
         37390 OVEREXPRESS?
        127206 RECOMBINANT?
L70         31 L58(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

FILE 'WPIDS'
        129342 EXPRESS?
          2960 OVEREXPRESS?
         42500 RECOMBINANT?
L71          1 L59(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

TOTAL FOR ALL FILES
L72        347 L60(10A)(EXPRESS? OR OVEREXPRESS? OR RECOMBINANT?)

=> s l72 not 2001-2006/py
FILE 'MEDLINE'
       3247230 2001-2006/PY
                 (20010000-20069999/PY)
L73         31 L61 NOT 2001-2006/PY

FILE 'SCISEARCH'
       6018888 2001-2006/PY
                 (20010000-20069999/PY)
L74         23 L62 NOT 2001-2006/PY

FILE 'LIFESCI'
        592799 2001-2006/PY
L75         24 L63 NOT 2001-2006/PY

FILE 'BIOTECHDS'
        136509 2001-2006/PY
L76         14 L64 NOT 2001-2006/PY

FILE 'BIOSIS'
       2943345 2001-2006/PY
L77         45 L65 NOT 2001-2006/PY

FILE 'EMBASE'
       2805100 2001-2006/PY
L78         24 L66 NOT 2001-2006/PY

FILE 'HCAPLUS'
       6085153 2001-2006/PY
L79         49 L67 NOT 2001-2006/PY

FILE 'NTIS'
         91351 2001-2006/PY
L80          0 L68 NOT 2001-2006/PY

FILE 'ESBIOBASE'
       1701930 2001-2006/PY
L81         15 L69 NOT 2001-2006/PY

FILE 'BIOTECHNO'
        368875 2001-2006/PY
L82         25 L70 NOT 2001-2006/PY

FILE 'WPIDS'
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       5198425 2001-2006/PY
L83          0 L71 NOT 2001-2006/PY

TOTAL FOR ALL FILES
L84        250 L72 NOT 2001-2006/PY

=> dup rem l84
PROCESSING COMPLETED FOR L84
L85          72 DUP REM L84 (178 DUPLICATES REMOVED)

=> d tot

L85  ANSWER 1 OF 72     MEDLINE on STN                    DUPLICATE 1
TI   The central cytoplasmic loop of the major facilitator superfamily of
     transport proteins governs efficient membrane insertion.
SO   Proceedings of the National Academy of Sciences of the United States of
     America, (2000 Aug 1) Vol. 97, No. 16, pp. 8938-43.
     Journal code: 7505876. ISSN: 0027-8424.
AU   Weinglass A B; Kaback H R
AN   2000422576     MEDLINE

L85  ANSWER 2 OF 72  LIFESCI    COPYRIGHT 2006 CSA on STN DUPLICATE 2
TI   The Sucrose Permease of Escherichia coli: Functional Significance of
     Cysteine Residues and Properties of a Cysteine-less Transporter
SO   Biochemistry (Washington) [Biochemistry (Wash.)], (20000500) vol. 39, no.
     20, pp. 6164-6169.
     ISSN: 0006-2960.
AU   Sahin-Toth, M.; Frillingos, S.; Lawrence, M.C.; Kaback, H.R.
AN   2001:39280  LIFESCI

L85  ANSWER 3 OF 72  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
TI   Thiol cross-linking of cytoplasmic loops in the lactose permease of
     Escherichia coli.
SO   Biochemistry, (March 21, 2000) Vol. 39, No. 11, pp. 3134-3140. print.
     CODEN: BICHAW. ISSN: 0006-2960.
AU   Kwaw, Isidore; Sun, Jianzhong; Kaback, H. Ronald [Reprint author]
AN   2000:202686  BIOSIS

L85  ANSWER 4 OF 72  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on STN
TI   Topography of the surface of the Escherichia coli phosphotransferase
     system protein enzyme IIAglc that interacts with lactose permease.
SO   Biochemistry, (March 21, 2000) Vol. 39, No. 11, pp. 2931-2939. print.
     CODEN: BICHAW. ISSN: 0006-2960.
AU   Sondej, Melissa; Seok, Yeong-Jae; Badawi, Paul; Koo, Byoung-Mo; Nam,
     Tae-Wook; Peterkofsky, Alan [Reprint author]
AN   2000:202673  BIOSIS

L85  ANSWER 5 OF 72  SCISEARCH  COPYRIGHT (c) 2006 The Thomson Corporation  on
     STN
TI   Expression and membrane targeting of E-coli lactose
     permease and beta-galactosidase in mammalian cells for drug
     delivery.
SO   FASEB JOURNAL, (11 MAY 2000) Vol. 14, No. 8, pp. A1324-A1324. MA 78.
     ISSN: 0892-6638.
AU   Howard-Till R A (Reprint); Naleway J J
AN   2000:553444  SCISEARCH

L85  ANSWER 6 OF 72  HCAPLUS  COPYRIGHT 2006 ACS on STN
TI   Expression of the galactose mutarotase gene from Lactococcus lactis ssp.
     lactis ATCC7962 in Escherichia coli
SO   Journal of Microbiology and Biotechnology (2000), 10(6), 840-843
     CODEN: JOMBES; ISSN: 1017-7825
AU   Lee, Jong-Hoon; Choi, Jae Yeon; Lee, Jung Min; Kim, Jeong Hwan; Chang, Hae
     Choon; Chung, Dae Kyun; Lee, Hyong Joo
AN   2001:70324  HCAPLUS
```

DN 134:294612

L85 ANSWER 7 OF 72 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN DUPLICATE
AN 2000088135 ESBIOBASE
TI Mutants of the lactose carrier of Escherichia coli which show altered sugar recognition plus a severe defect in sugar accumulation
AU Varela M.F.; Wilson T.H.; Rodon-Rivera V.; Shepherd S.; Dehne T.A.; Rector A.C.
CS M.F. Varela, Department of Biology, Eastern New Mexico University, Portales, NM 88130, United States.
SO Journal of Membrane Biology, (01 APR 2000), 174/3 (199-205), 43 reference(s)
CODEN: JMBBBO ISSN: 0022-2631
DT Journal; Article
CY United States
LA English
SL English

L85 ANSWER 8 OF 72 MEDLINE on STN DUPLICATE 4
TI Immuno-capture differential display method (IDDM) for the detection of environmentally induced promoters in rhizobacteria.
SO Journal of microbiological methods, (2000 Jun) Vol. 41, No. 1, pp. 77-84.
Journal code: 8306883. ISSN: 0167-7012.
AU Timms-Wilson T M; Ellis R J; Bailey M J
AN 2000403060 MEDLINE

L85 ANSWER 9 OF 72 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Detection of the C5a receptor in Alzheimer and non-demented brain using novel rabbit monoclonal antibodies.
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-764.17. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
AU O'Barr, S. A. [Reprint author]; Morgan, E. L.; Cooper, N. R.
AN 2001:121232 BIOSIS

L85 ANSWER 10 OF 72 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 5
TI Construction of a Lactose-assimilating Strain of Baker's Yeast
SO Yeast, (19990930) vol. 15, no. 13, pp. 1299-1305.
ISSN: 0749-503X.
AU Adam, A.C.; Prieto, J.A.; Rubio-Texeira, M.; Polaina, J.*
AN 2000:6783 LIFESCI

L85 ANSWER 11 OF 72 MEDLINE on STN DUPLICATE 6
TI Continuous ethanol fermentation of lactose by a recombinant flocculating Saccharomyces cerevisiae strain.
SO Biotechnology and bioengineering, (1999 Sep 20) Vol. 64, No. 6, pp. 692-7.
Journal code: 7502021. ISSN: 0006-3592.
AU Domingues L; Dantas M M; Lima N; Teixeira J A
AN 1999345924 MEDLINE

L85 ANSWER 12 OF 72 MEDLINE on STN DUPLICATE 7
TI Proximity relationships between helices I and XI or XII in the lactose permease of Escherichia coli determined by site-directed thiol cross-linking.
SO Journal of molecular biology, (1999 Aug 20) Vol. 291, No. 3, pp. 683-92.
Journal code: 2985088R. ISSN: 0022-2836.
AU Wang Q; Kaback H R
AN 1999380412 MEDLINE

L85 ANSWER 13 OF 72 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 8
TI Construction of a flocculent Saccharomyces cerevisiae fermenting lactose
SO Applied Microbiology and Biotechnology [Appl. Microbiol. Biotechnol.],

(19990531) vol. 51, no. 5, pp. 621-626.
ISSN: 0175-7598.
AU Domingues, L.; Teixeira, J.A.; Lima, N.*
AN 1999:79167 LIFESCI

L85 ANSWER 14 OF 72 MEDLINE on STN DUPLICATE 9
TI Two-dimensional crystallization of Escherichia coli lactose permease.
SO Journal of structural biology, (1999 Mar) Vol. 125, No. 1, pp. 63-75.
Journal code: 9011206. ISSN: 1047-8477.
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L85 ANSWER 28 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
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L85 ANSWER 50 OF 72 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
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L85 ANSWER 51 OF 72 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
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L85 ANSWER 53 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
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L85 ANSWER 54 OF 72 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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L85 ANSWER 57 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
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L85 ANSWER 58 OF 72 MEDLINE on STN DUPLICATE 38
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L85 ANSWER 59 OF 72 MEDLINE on STN DUPLICATE 39
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L85 ANSWER 60 OF 72 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
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L85 ANSWER 61 OF 72 MEDLINE on STN DUPLICATE 40
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L85 ANSWER 62 OF 72 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
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L85 ANSWER 63 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN

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L85 ANSWER 64 OF 72 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
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L85 ANSWER 66 OF 72 MEDLINE on STN DUPLICATE 42
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L85 ANSWER 67 OF 72 MEDLINE on STN DUPLICATE 43
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L85 ANSWER 70 OF 72 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 45
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L85 ANSWER 71 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
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L85 ANSWER 72 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
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SO Journal of Bacteriology (1973), 116(1), 131-40 CODEN: JOBAAY; ISSN: 0021-9193
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L85 ANSWER 17 OF 72 MEDLINE on STN DUPLICATE 12
AB The role of the Escherichia coli lacY gene product (the lactose permease) in the induction of isopropyl-beta-D-thiogalactopyranoside (IPTG) inducible promoters was studied in E. coli and P. fluorescens. This was done by comparing strains containing a lacIPOZYA chromosomal insert with newly constructed strains containing inserts without the lacY gene (lacIPOZ). The lactose operon inserts were introduced as single-copy chromosomal inserts to eliminate differences in expression caused by differences in copy number. Comparison between the two types of inserts showed that the lactose permease was essential to allow growth on lactose by both bacteria and that the lactose permease plays an important role in transporting the inducer IPTG across the membrane of P. fluorescens. The use of a functional lactose permease allows expression of beta-galactosidase to increase more than fivefold from a wild-type lac promoter in P. fluorescens SS1001. We suggest that an increase in the rate of protein synthesis from lac-type promoters could be enhanced if an active lactose permease is present as well.

L85 ANSWER 27 OF 72 MEDLINE on STN DUPLICATE 19
AB The lactose permease of Escherichia coli is a membrane transport protein containing 12 transmembrane hydrophobic domains connected by hydrophilic loops. Coexpression of lacY gene fragments encoding contiguous polypeptides corresponding to the first and second halves of the permease [Bibi, E., & Kaback, H. R. (1990) Proc. Natl. Acad. Sci. U.S.A. 87, 4325-4329] or the first two transmembrane domains and the remainder of the molecule [Wrubel, W., Stochaj, U., Sonnewald, U., Theres, C., & Ehring, R. (1990) J. Bacteriol. 172, 5374-5381] leads to active lactose transport. It is shown here that contiguous permease fragments with discontinuities in loop 1 (periplasmic), loop 6 (cytoplasmic), or loop 7 (periplasmic) exhibit transport activity; however, fragments with discontinuities in transmembrane domains III or VII fail to do so. The results are consistent with the interpretation that contiguous permease fragments with discontinuities in hydrophilic loops form functional duplexes, while fragments with discontinuities in transmembrane alpha-helical domains do not. On the basis of this notion, a series of contiguous, nonoverlapping permease fragments with discontinuities at various positions in loop 6, putative helix VII, and loop 7 were coexpressed to approximate the boundaries of putative transmembrane domain VII. Contiguous fragments with a discontinuity between Leu222 and Trp223 or between Gly254 and

Glu255 are functional, but fragments with a discontinuity between Cys234 and Thr235, between Gln241 and Gln242, or between Phe247 and Thr248 are inactive. Therefore, it is likely that Leu222 and Gly254 are located in hydrophilic loops 6 and 7, respectively, while Cys234, Gln241, and Phe247 are probably located within transmembrane domain VII.(ABSTRACT TRUNCATED AT 250 WORDS)

L85 ANSWER 28 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
AB An engineered fusion protein containing two tandem lactose permease mols. (permease dimer) exhibits high transport activity and is used to test the phenomenon of neg. dominance. Introduction of the mutation Glu-325 → Cys into either the first or the second half of the dimer results in a 50% decrease in activity, whereas introduction of the mutation into both halves of the dimer abolishes transport. Lactose transport by permease dimer is completely inactivated by N-ethylmaleimide; however, 40-45% activity is retained after N-ethylmaleimide treatment when either the first or the second half of the dimer is replaced with a mutant devoid of cysteine residues. The observations demonstrate that both halves of the fusion protein are equally active and suggest that each half may function independently. To test the possibility that oligomerization between dimers might account for the findings, a permease dimer was constructed that contains two different deletion mutants that complement functionally when expressed as untethered mols. Because this construct does not catalyze lactose transport to any extent whatsoever, it is unlikely that the two halves of the dimer interact or that there is an oligomeric interaction between dimers. The approach is consistent with the contention that the functional unit of lactose permease is a monomer.

L85 ANSWER 35 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
AB A review with 58 refs., discussing the structure, the membrane insertion and stability, and the oligomeric state of lactose permease, expression of the lacY gene, functional complementation of deletion mutants, and site-directed mutagenesis.

L85 ANSWER 42 OF 72 MEDLINE on STN DUPLICATE 29
AB The lacY gene of Escherichia coli was cut into two approximately equal-size fragments with Afl II and subcloned individually or together under separate lac operator/promoters in plasmid pT7-5. Under these conditions, lac permease is expressed in two portions: (i) the N-terminal portion (the N terminus, the first six putative transmembrane helices, and most of putative loop 7) and (ii) the C-terminal portion (the last six putative transmembrane helices and the C terminus). Cells harboring pT7-5 encoding both fragments transport lactose at about 30% the rate of cells expressing intact permease to a comparable steady-state level of accumulation. In contrast, cells expressing either half of the permease independently do not transport lactose. As judged by [35S]methionine labeling and immunoblotting, intact permease is completely absent from the membrane of cells expressing lacY fragments either individually or together. Thus, transport activity must result from an association between independently synthesized pieces of lac permease. When the gene fragments are expressed individually, the N-terminal portion of the permease is observed inconsistently, and the C-terminal portion is not observed. When the gene fragments are expressed together, polypeptides identified as the N- and C-terminal moieties of the permease are found in the membrane. It is concluded that the N- or C-terminal halves of lac permease are proteolyzed when synthesized independently and that association between the two complementing polypeptides leads to a more stable, catalytically active complex.

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L85 ANSWER 65 OF 72 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
AB In vivo synthesis of Escherichia coli lactose-permease has been achieved

in minicells produced by the strain DR103 harboring the lacY-carrying plasmid, pGM21. The newly synthesized carrier was bound to the membrane. Addition of inducer (isopropyl 1-thio-beta-D-galactopyranoside) and/or cAMP increased the amount of the carrier synthesized. After 2 hr, a drastic decrease in both active transport activity and colony-forming capacity was observed. Amplification of lacY gene expression leads to enrichment of mutants with defective permease activity. Mild selective pressure growth of pTE18-containing cells in rich medium leads to selection of lacY plasmid mutants. Drastic selective pressure addition of isopropyl 1-thio-beta-D-galactopyranoside and/or cAMP to cells harboring pGM21 and grown in minimal glucose medium, leads to selection of chromosomal mutation affecting the Lac phenotype. The chromosomal mutation(s) affect either the normal insertion and/or the function of the lac carrier. (47 ref)

L85 ANSWER 66 OF 72 MEDLINE on STN DUPLICATE 42
AB The evolution of new metabolic functions is being studied in the laboratory using the EBG system of E. coli as a model system. It is demonstrated that the evolution of lactose utilization by lacZ deletion strains requires a series of structural and regulatory gene mutations. Two structural gene mutations act to increase the activity of ebg enzyme toward lactose, and to permit ebg enzyme to convert lactose into allolactose, and inducer of the lac operon. A regulatory mutation increases the sensitivity of the ebg repressor of lactose, and permits sufficient ebg enzyme activity for growth. The resulting fully evolved ebg operon regulates its own expression, and also regulates the synthesis of the lactose permease.

L85 ANSWER 69 OF 72 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The previously described hybrid plasmid pC7 which carries lac+O+ Δ(Z)Y+A+ on a 12.3 + 106-mol. weight DNA fragment (Feather, R. M., et al., 1978) was partially digested with the restriction endonuclease EcoR 1 under conditions reducing the recognition sequence to ↓d(A-A-T-T) and ligated to the vector pBR322 gene lacY-carrying inserts of various sizes (mol. weight 1.5-4.7 + 106) were obtained. Hybrid plasmid pTE18 (2300-base-pair insert) carries part of the I (repressor) gene, the promoter-operator region, part of the Z (β-galactosidase) gene, the Y (lactose carrier) gene and part of the A (transacetylase) gene. Upon induction of pTE18-harboring strains the Y-gene product is expressed at a nearly constant rate for several generations and accumulates to a level of 12-16% of the total cytoplasmic membrane protein. Integration into the membrane leads to active carrier as judged by binding and transport measurements.

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TOTAL FOR ALL FILES
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TI   Mutant membrane protein toxicity.
SO   Journal of Biological Chemistry, (Oct. 23, 1998) Vol. 273, No. 43, pp.
     28078-28084. print.
     CODEN: JBCHA3. ISSN: 0021-9258.
AU   Stewart, Christine; Bailey, Jeannie; Manoil, Colin [Reprint author]
AN   1998:505720  BIOSIS


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